

WHAT ARE THE YOUNG PEOPLE'S PERCEPTIONS OF THE CIRCULAR ECONOMY?

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Abstract The circular economy is often seen as a technical issue and focuses on the better organization of work processes. A more accurate and holistic approach to the cycle can help create a better and more inclusive future for all. The circular economy has been linked to several SDGs in previous research, of which our research focuses on SDG 12 (responsible consumption and production). Young people play a key role in achieving a circular future (as an organizing principle of the socio-economic system). In our research, we asked 1,442 university students (most born around 2000) about their awareness, understanding, and participation in the social cycle using a standardized questionnaire. Our research shows that those who consider themselves environmentally conscious are more likely to recycle and collect separately, but it is not clear that they are involved in extending the life of objects (exchange, second market, etc.). Our research found that students don't use, but are typically unaware of, internet applications that promote circular living.

Keywords:

circular economy,
SDG 12,
holistic approach,
lifestyle,
consumer habits

JEL:

D12, I31

1 Introduction

Changing the unsustainable logic of the global economy is the most important challenge of our time. The constantly and rapidly changing climate and the tensions arising from growing inequality on the human side make the responsibility of all economic actors clear (IPCC, 2022). There were also high expectations that COVID would make a positive difference to sustainability issues, but recent research shows that while there are temporary and partial results, there has been no significant change (Csutora et al., 2022b). The practical implementation of the concept of sustainability (UN, 1987), which is essentially macro and initially mainly related to the environment, requires interventions and conscious action at both micro and meso-levels, since the actions and impacts of actors are far from independent of each other and determine each other's potential. Nevertheless, the responsibilities of the different levels and actors are typically treated separately. This is how the theory and practice of corporate social responsibility (CSR) has been formulated on the corporate side (Carroll, 2008) and the expectation of conscious and responsible consumption on the consumer side (Csutora et al., 2022a). The authors show that the circular economy can be organized in very different ways (Bowens et al., 2020). In our research, we are mainly interested in how young people relate to circular economy processes. From this, we want to find out what a circular economy future might look like.

2 Theoretical Background

The circular economy may hold great promise for achieving sustainability (Szigeti et al., 2022). Much of the contemporary literature on circular economy (CE) presents the transition to CE as a simple, neutral process, implicitly characterized by a techno-optimistic and eco-modernist stance. Therefore, most research on the circular economy focuses on a practical and technical level, looking at the material and energy flows of production-consumption systems. However, the underlying worldview assumptions that need to be embedded in CE are largely ignored (Lowe-Genovese, 2022). Research by Bowens et al., (2020) develops four scenarios for the future of the circular economy, these are:

- 'planned circularity' – CE transition is centrally controlled by the government through strong coercive measures (taxation, bans, mandatory repair),
- 'bottom-up sufficiency', – focuses on small-scale CE solutions at local level,
- 'circular modernism' – technological innovation and market forces are seen as able to decouple resource use and carbon emissions from human development, is compatible with the concept of 'green growth', does not call into question the high consumption and growth focus and business models of significantly capitalist societies.
- 'peer circularity' – focus on technologies that enable collaborative consumption (e.g. internet platforms).

3 Methodology

Our questionnaire was based on the survey of Csutora et. al., (2022a). This previous research covered all sustainable business models, however, our research focused only on the circular economy. The questionnaire used for our research contains closed questions. The questionnaire was completed electronically by university students between 29 November and 13 December 2022. We received a total of 1442 completions. Of the students who completed the questionnaire, 48.3% were enrolled in a bachelor's degree in engineering, 15.8% in economics, the remainder being distributed among several courses (e.g. sociology, law, international studies, computer science in economics). Most of the students (83.9%) reached by the questionnaire, were born after 2000. In addition to the demographic questions, we asked 5 questions, of which we will now elaborate on the first one. The first question was: "To what extent do these statements apply to you?" There were 11 response options, which respondents rated using a Likert 6-point scale (6: very specific, 1: not at all specific). We use a 6-point Likert scale to avoid neutral answers. The respondent must therefore decide at the time of scoring whether he/she considers the statement to be typical or not. The answer choices listed below are indicated by a letter in brackets, e.g. (A). The answer choices in Table 1 and Figure 1 are indicated by this letter. Questions (A) and (K) show general statements, while questions (B), (C) and (D) show simple, slogan-like statements offered by consumer society. Statements (E) (H) (I) (J) refer to active participation in circular processes in

everyday life. And statements (F) and (G) refer to the use of internet platforms in circular processes.

Response options:

- I am environmentally conscious (A),
- recycling is important to me (B),
- I collect my waste separately (C),
- I do not buy products in disposable packaging (D),
- we swap personal stuffs, books, and clothes among friends (E),
- I am a member of online groups whose main profile is to facilitate swaps between members (F),
- I often swap items via internet platforms (G),
- I used to buy second-hand clothes (H),
- I usually borrow books from the library (I),
- I like to use recycled products (e.g. a bag sewn from used jeans) (J),
- I live frugally, I spend my money wisely (K).

Questions (A) and (K) show general statements, while questions (B), (C) and (D) show simple, slogan-like statements offered by consumer society. Statements (E), (H), (I), (J) refer to active participation in circular processes in everyday life. And statements (F) and (G) refer to the use of internet platforms in circular processes. Using the Likert scale, the ordering can be clearly clarified, but the distance between each response cannot be interpreted, so the resulting result can be interpreted as an ordinal scale, which determines the further processing possibilities. From the total sample, we examined separately the results of respondents who gave a score of 6 for statement (A), i.e. who considered themselves to be very environmentally aware. These results are shown in Table 2. Both the total population and the set of environmentally conscious respondents were analyzed using the positional averages, i.e., the mode and the median.

The median is the middle value of a data series, where the number of data smaller and larger than this is the same. Its value is equal to the 50th percentile or the middle quartile. It belongs to the group of central tendencies, within which it belongs to the group of positional averages. The concept of a mode indicates the most common

value of a data series. That is, the mode is the value that occurs most often in our sample. It belongs to the group of central tendencies, including positional averages.

After analyzing the answers to the first question, we decided to look at the question related to the most divisive item in our questionnaire (this is question 5, so we refer to it in the article). In the fifth question (this is a one-choice, closed question), we asked about the knowledge and use of online applications and web shops that could be relevant for the circular economy. These were:

- Munch: Munch is a platform where restaurants and retailers offer unsold but high-quality food at a discount (munch.hu)
- Háda: online store selling second-hand clothes, shoes, and accessories (hadawebshop.hu)
- Rukkola: an online book exchange site where you can earn points for donating books. And you can use the points to buy other books (rukkola.hu).
- Vinted: an online marketplace for second-hand clothing and accessories where you can buy directly from the seller. The online marketplace provides security for the buyer and increased turnover for the seller (vinted.hu).
- LiveRobe: An online marketplace for used, but brand new, premium clothing and accessories <https://liverobe.com/>.

The question was: 'Have you tried it?' And the answer options were:

- I have not heard of it,
- I've heard of it, but I don't know it,
- I've tried it a few times,
- I used it regularly.

The number of responses for each answer is shown in Table 3 and the distribution of responses in Table 4.

4 Results

There are many similarities between the results for the full sample (Table 1) and those who consider themselves environmentally aware (Table 2). As expected, those who are environmentally aware have a higher degree of self-perceived statements. Comparing the two tables, the most interesting situation is seen in statements (F), (H), (I), (J), where the median increased by 1 for the environmentally conscious but the mode changed from 1 to 6 (highlighted in bold). For (G), the median has been increased from 2 to 4, but the mode remains 1. If we look at Table 2, we can see that the second most frequent value in column (G) is 6.

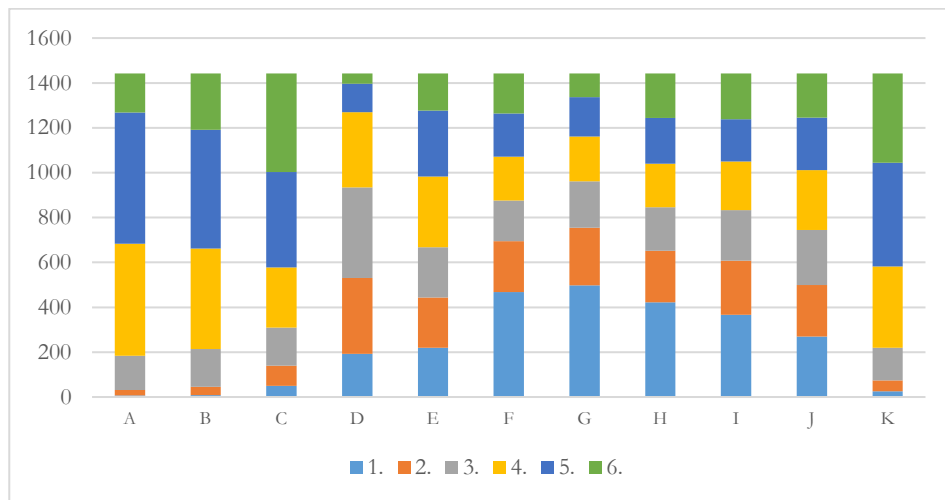


Figure 1: To what extent do these statements apply to you? (6: very specific, 1: not at all specific) (N=1442)

Source: Authors' elaboration.

Table 1: Response distribution to question 1 for the whole sample

	A	B	C	D	E	F	G	H	I	J	K
1.	7	8	50	193	220	468	498	422	367	270	25
2.	24	37	90	338	223	226	256	230	241	229	49
3.	153	169	169	403	224	182	207	194	225	246	146
4.	499	448	268	336	316	195	200	194	217	266	362
5.	585	529	426	127	294	193	175	204	188	235	462
6.	174	251	439	45	165	178	106	198	204	196	398
median	5	5	5	3	4	3	2	3	3	3	5
mode	5	5	6	3	4	1	1	1	1	1	5

Table 2: Response distribution to question 1 among environmentally aware respondents.

	A	B	C	D	E	F	G	H	I	J	K
1.	0	1	1	11	22	34	46	36	27	21	2
2.	0	0	0	12	15	15	18	21	20	13	3
3.	0	0	6	29	12	15	13	20	17	12	4
4.	0	8	17	59	46	36	25	25	25	31	16
5.	0	30	27	37	35	26	32	28	27	37	44
6.	174	135	123	26	44	48	40	44	58	60	105
median	6	6	6	4	4	4	4	4	4	5	6
mode	6	6	6	4	4	6	1	6	6	6	6

Tables 3 and 4 show that the students surveyed (with the exception of the Háda webshop) are generally neither familiar with nor use online exchange applications. Looking at the data in the tables, it can be seen that less than 5% of the applications listed are used regularly. Even in the case of the best known Háda webshop, the higher figure (24%) is related to infrequent users. Although it can be said here that many people are aware of its existence, even if they do not use it. LiveRob is hardly known among the respondents.

Table 3: Number of responses to question 5 of the questionnaire

	Munch	Háda	Rukkola	Vinted	LiveRob
I have not heard of it	832	222	931	660	1107
I've heard of it, but I don't know it	470	820	378	620	282
I've tried it a few times	108	345	107	114	38
I used it regularly	31	55	26	48	15

Table 4: Distribution of responses to question 5 of the questionnaire (%)

	Munch	Háda	Rukkola	Vinted	LiveRob
I have not heard of it	55	15	65	46	77
I've heard of it, but I don't know it	33	57	26	43	20
I've tried it a few times	7	24	7	8	3
I used it regularly	2	4	2	3	1

5 Discussion and Conclusion

Our research investigated which circular business model can be facilitated by the manifested consumer behaviour. Circularity is particularly important because it is not only one of the sustainable business models, but can also be an important

manifestation of responsible, sustainability-oriented consumer behaviour at the individual level (Szigeti et al., 2022). The results of our research show that young people consider themselves to a large extent environmentally conscious, participating in techno-optimistic processes (selective waste collection) that lead to a world of circular modernism. Bottom-up efficiency is clearly present in smaller groups, but its causes and forms need to be examined in more detail below. It is surprising that applications linked to exchanges and secondary markets are not known or used, so that the conditions for peer circularity are not yet in place. At this stage of the research, we can't draw any conclusions about planned circularity.

One of the main limitations of our research is that there are circular business models that can't be effectively investigated from a consumer perspective. The other limitation is that the questionnaire was distributed only among Hungarian students. Another limitation stems from the concept of circularity. As with sustainability, there are criticisms of circularity.

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